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ABSTRACT

Researchers at the Educational Testing Service analyzed the 1989-90 Scholastic Aptitude Test (SAT) database to create profiles of students who participate in religious activities or organizations while in high school. Analyses included the comparison of profiles of students participating in religious activities versus those who did not, based on the entire student population. Two case studies, of Presbyterian students and Roman Catholic students, sought to answer questions of specific concern to policymakers in those denominations. Test takers who participated in religious activities differed from those who did not participate in a number of ways. Their families had more education and a higher income, and their SAT scores and grades in math, science, and writing were higher. More had taken honors courses, and they had higher degree aspirations. Students participating in religious activities also participated more fequently in other activities and more often chose humanities, social sciences, health sciences, and education as college majors. They chose business less often than did students who did not participate in religious activities. Additional information is given for the Presbyterian and Roman Catholic populations. Seven figures and six tables present study findings. An appendix contains the Student Descriptive Questionnaire. (Contains 4 references.) (SLD)

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PARTICIPATION IN RELIGIOUS ACTIVITIES BY COLLEGE-BOUND HIGH SCHOOL SENIORS

Jerilee Grandy

Educational Testing Service
Princeton, New Jersey
August 1993

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Participation in Religious Activities by College-Bound High School Seniors

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August 1993

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Abstract

Under a grant from the Lilly Endowment, ETS analyzed the 1989-90 Scholastic Aptitude Test (SAT) database to create profiles of students who participate in religious activities or organizations while in high school. Analyses included the comparison of profiles of students participating in religious activities versus those who did not, based on the entire student population. Then two denominational case studies of Presbyterian students and Roman Catholic students sought to answer questions of specific concern to policy makers in those denominations.

On the average, test takers who participated in religious activities differed from those who did not participate in the following ways:

- Their families had more education and a higher income, their SAT scores were higher, their grades in math, science, and writing were higher, more had taken honors courses, and they had higher degree aspirations.

- Students who participated in religious activities also participated more frequently in other activities, especially community or service activities.

- Students who participated in religious activities more often chose humanities, social sciences, health sciences, and education as college majors. They chose business less often than did students who did not participate in religious activities.

Additional information from the case study of Presbyterians was the following:

- If students were not participating in religious activities or organizations by ninth grade, they generally did not join later in high school.

- On the average, students who remained in religious activities or organizations throughout high school earned higher grades and test scores than those who dropped out.

The case study of Roman Catholic test takers yielded the following findings:

- A smaller percentage of Roman Catholic students participated in religious activities than did SAT takers as a whole. Catholic students attending religiously affiliated high schools participated in religious activities at about the same rate as mainline Protestant students attending all types of schools.

- Roman Catholic students attending religiously affiliated schools reported greater participation in religious activities and community activities than did Catholic students in public schools, but the number planning to participate in religious activities in college was not significantly higher for those attending religiously affiliated schools than for those in public schools.

- A comparison among Roman Catholic ethnic groups attending religiously affiliated schools showed Asian Americans reporting the highest levels of participation in religious activities in high school, participation in community service activities in high school, intention to participate in religious activities in college, and intention to attend a religiously affiliated college.

Introduction

Seldom, if ever, have the files of the College Board Scholastic Aptitude Test (SAT) been used as an information resource in which the primary focus of interest was something other than test scores. This research project was an exception. Information supplied by students on the Student Descriptive Questionnaire (SDQ) enabled us to characterize students who participate in religious activities and organizations in high school. Because the SDQ also asks for religious denomination, we have been able to answer some important questions that church leaders and religious educators have been asking about college-bound students who are members of their denomination.

Under a grant from the Lilly Endowment, ETS conducted a series of analyses focusing primarily on variables associated with religious participation in high school. This research is important to denominational leaders for three reasons.

First, most divinity students were active in their churches when they were in high school. We know this from the database of students who take the Theological School Inventory (TSI)[1]. TSI data on 13,442 students between 1982 and 1989 indicated the 56% identified themselves as "very active, or leaders," 27% "definitely participated," and 11% participated occasionally. Only 6% were not active at all. Thus by examining the background, aspirations, and academic characteristics of the million or so high school seniors taking the SAT, we are able to create a profile of the type of student who forms the pool from which many future clergy will emerge.

The second reason that information on religious participation is important is that it provides an indicator of the degree to which church leaders are successful in attracting high school students to church activities. By comparing the profiles of students who do participate with the profiles of students who do not participate, denominational leaders can know what type of student is attracted to their current programs and activities. If smaller percentages of high-scoring academic students were not participating, for instance, church educators might offer more academically challenging activities to attract those students.

A third reason that this study is important is that very little research is conducted in the area of religious education. Millions of dollars are spent studying the characteristics of science and engineering students and in attempting to increase their quality and their numbers, but essentially no funding is generally available for studying the profession of the clergy. With the already existing SAT data base, combined with funding from the Lilly Endowment, we were able to provide information useful to a profession about which little is known.

Information in the SAT Files

When students register to take the SAT, they indicate their gender, birth date, and high school attended. In addition, more than 80% complete the SDQ (See Appendix). The SDQ inquires about their academic background -- specific courses they have taken, grades earned,

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[1]The Theological Schools Inventory database was prepared by Richard Hunt of Fuller Theological Seminary.

overall grade point average (GPA), class rank -- and their plans for college -- the kind of college they want to attend, the highest degree they plan to complete, and the major field(s) they are considering. In addition, the SDQ asks in considerable detail about activities in which they have participated during each year of high school, honors and awards they have received, and the activities in which they plan to participate in college. Finally, it asks about family background, including father's and mother's education, family income, citizenship, ethnic identity, primary language, and religious preference.

Primary Focus of the Research

In our research, we focussed on religious preference, public versus religiously-affiliated school attendance, participation in religious activities in high school, and plans to participate in religious activities in college. The analyses compared students who participated in religious organizations with those who did not, and showed differences in academic profiles as well as differences in many other student characteristics. What types of students join religious organizations? How do they compare with students who do not? Are they the higher or lower academic achievers? Do their educational aspirations differ? Are they drawn toward different major fields? In what other activities do they participate? Do their activities and aspirations seem to reflect deeper values and concerns?

We looked across denominations and saw that students of some denominations participate in religious activities to a far greater extent than do students of other denominations. What might these differences in participation say about the number of future clergy emerging from these denominations? How effectively are churches of the various religious traditions and denominations engaging their young people in church activities?

Among Catholic students, how do those attending religiously affiliated schools compare with those attending public schools? Do they show a greater interest in participating in religious or community service activities? Do they show greater interest in majoring in religious studies, religious education, or theology?

In our exploration of the SAT data base, we were able to answer many of these questions, but before examining the findings, it is important to get an overview of the SAT data base to clarify who the students are who take the SAT and to see what information we have about them.

The 1990 SAT Population

The analyses in this report are based on the students who took the SAT during the academic year 1989/90. For simplicity, we regard them as the 1990 population because most of them will have graduated in the spring of 1990. In actuality, some of these students were in the eleventh grade and chose not to take the SAT again in the twelfth grade. Thus we treated them as if they were seniors. For the sake of this study, we will regard all test takers as high school seniors.

In the 1990 SAT population, a total of 1,093,833 high school seniors registered to take the SAT[2]. Of this total, 52% were female, 92% were U. S. citizens, and 72% were White. Not all students planning to attend college take the SAT; many colleges do not require the SAT for admission. Students who plan to attend a two-year college, for example, often do not take the test. In 1990, 88% of all SAT takers planned to attend a four-year college or university. There were also regional differences in test-taking patterns, with the majority of test takers residing on the east and west coasts. The greatest number of students (30%) resided in the Middle Atlantic states, 20% in the southeast, 19% in the west, 13% in the midwest, 10% in New England, and the remainder in the southwest. In general, the midwest, the mountain states, and the south tended to be underrepresented. Approximately 12% of the students attended a religiously-affiliated high school, and 14% were considering a religiously-affiliated college.

The SDQ asked students to consult with their parents to answer the financial information questions. According to their responses, approximately half of the sample came from families with a total annual income over $40,000. Forty-three percent of fathers and 32% of mothers had at least a bachelor's degree.

SAT scores are reported on a scale from 200 to 800. The average SAT verbal test score in 1990 was 423; the average mathematics score was 476. Students reported an average GPA of 3.02 -- just slightly greater than a B. One-fifth planned eventually to earn a doctorate.

A critical piece of information for this study came from item number 12 in the SDQ. See the Appendix for the specific wording of all parts of the item. The first part of the instructions read:

> In addition to regular class work, many students are involved in activities that reflect their abilities and interests. These include community service and involvement, extracurricular and out-of-school activities, and individual endeavors. **Indicate in which grades you participated or will participate in the activities listed below.**

The instructions were followed by a list of 25 activities, including:

- Religious activity or organization
- Community or service activity (for example, volunteer work, neighborhood clean-up or patrol group, Scouting, 4-H, Key Club)

A considerable number of students indicated that they participated in a religious activity or organization in high school: 27% said they participated in 9th grade, 10th grade, and 11th grade. The number dropped to 22% in twelfth grade. Only 14% planned to participate in

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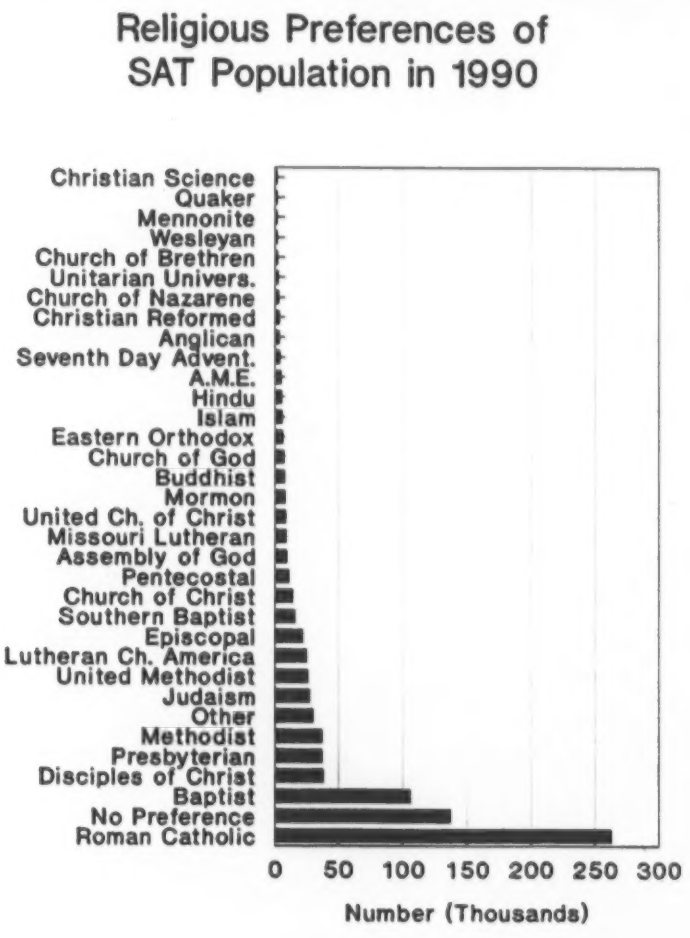
[2]Of the total who registered, 94% actually took the SAT. We analyzed all registrants for this study to have as large a sample as possible. Statistics on SAT scores were based, of course, on those 94% for whom scores were available.

college. Results of the community or service activity were similar -- 21% participated in ninth grade, 24% in tenth grade, 28% in eleventh grade, and 24% in twelfth grade. Five percent reported that they had been an officer in a community or service organization; similarly, 5% said they had been an officer in a religious organization.

Another question relevant to our study was on religious preference or affiliation (Appendix, question number 38). The instructions were worded as follows:

> Colleges are often interested in contacting prospective students about their campus-based religious clubs and offerings. **Please write in the number of your religious preference or affiliation** and fill in the appropriate oval below each digit. If your religious preference or affiliation is not listed, please fill in number 97, "Other."

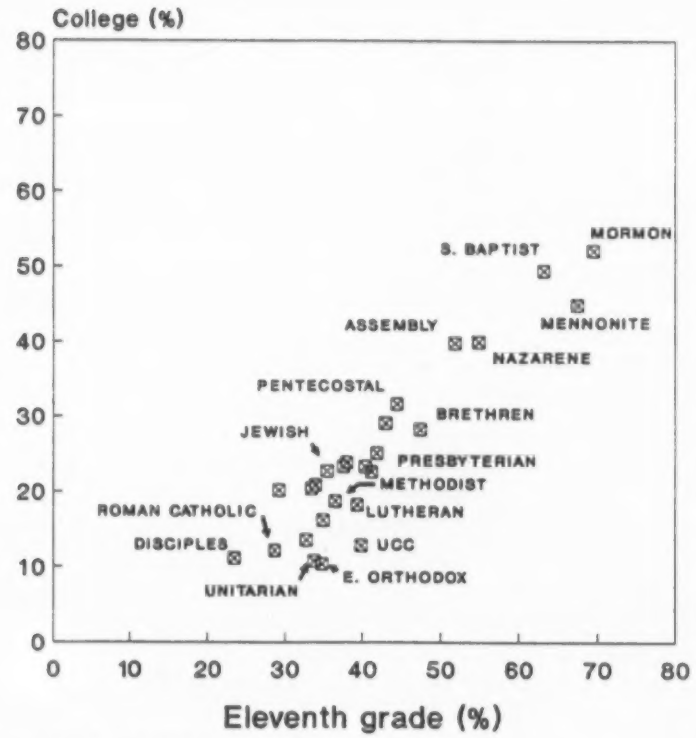
These instructions were followed by a list of 35 options, including "I prefer not to answer," "Other," and "No preference or affiliation." See Appendix, item 38, for the list of denominations. The following graph shows the distribution of responses to this question.



Note that the choice of "No preference or affiliation" was second only to Roman Catholic. Some denominations, such as United Methodist, Methodist, and Wesleyan could have been combined, which would have increased their number and their position in the list. But for the purpose of tabulation, the options were left as they were presented in the SDQ.

Participation rates in religious activities or organizations varied considerably across denominations. For most denominations, participation was highest in eleventh grade and tended to drop off slightly in twelfth grade.[3] Anticipated participation in college tended to be about one-half as great as eleventh grade participation, for nearly every denomination. The next figure is a scatter plot showing eleventh grade participation versus planned college participation rates for each denomination. Some labels, especially for smaller denominations, have been excluded because of space limitations.

Planned College Participation vs Eleventh Grade Participation in Religious Activities



Based on 1990 SAT file

[3]It is possible that some of the eleventh graders answering the question did not know whether they would be participating in twelfth grade, and their omission of a response may account for some of the decline between eleventh and twelfth grade.

For Jewish students and for students in most of the mainline[4] Protestant denominations, about 35% reported having participated in religious activities in eleventh grade. About half that many planned to participate after starting college. We see that some denominations were quite different. Mormons, Southern Baptists, and Mennonites reported very high participation rates -- between 60% and 70% in the eleventh grade. Approximately half of the students of these denominations planned to participate in religious activities in college. We should mention that the Mormon sample, in particular, may not be typical of all Mormons in the United States. Only a small percentage of high school seniors in Utah take the SAT, so a disproportionately high number of Mormons in this sample come from other states. Those denominations showing the lowest level of participation in religious activities were Disciples of Christ and Roman Catholics.

Comparisons of Students Who Participated in Religious Activities with Those Who Did Not

Comparisons Based on All SAT-Takers. There were considerable differences in the profiles of students who participated in religious activities and those who did not. For comparison purposes, we defined "participators" as those students who reported that they participated in religious activities in eleventh grade. The reason we did not use twelfth grade was that some of the sample were still eleventh graders when they took the SAT, and they may not have decided whether they would participate in twelfth grade.

What remains uncertain is how they interpreted the word "participated." Undoubtedly, some students might have interpreted it loosely as meaning "going to church or synagogue," whereas others probably restricted the meaning to active participation in youth groups. Furthermore, some students may have wished to appear active and involved in their community and may have marked that they participated in religion, community service, school clubs, sports, music, etc. Their report of their level of participation, in other words, may have been exaggerated because the SDQ responses go to the colleges that they designate.

Aside from these limitations of the data, we expect that the most active students did mark the item, and the inactive ones did not. Those with borderline levels of activity probably introduced some tolerable error into the data.

Differences in background characteristics of participators and nonparticipators were often quite pronounced. The following table highlights the differences in background.

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[4]Sociologists generally refer to the long-established Protestant denominations as "mainline." These include denominations such as Methodist, Presbyterian, Lutheran, and United Church of Christ (UCC). See Roof and McKinney, *American Mainline Religion: Its Changing Shape and Future* (1987).

	Participated in religious activities (N = 298,232)	Did not participate in religious activities (N = 795,601)
U. S. citizens	95%	91%
Female	56%	50%
White	77%	70%
Mother has at least 4 years college education	39%	29%
Father has at least 4 years college education	51%	40%
Annual family income at least $40,000	52%	46%
Plans to apply for financial aid	70%	66%
Attended a religiously affiliated high school	16%	11%

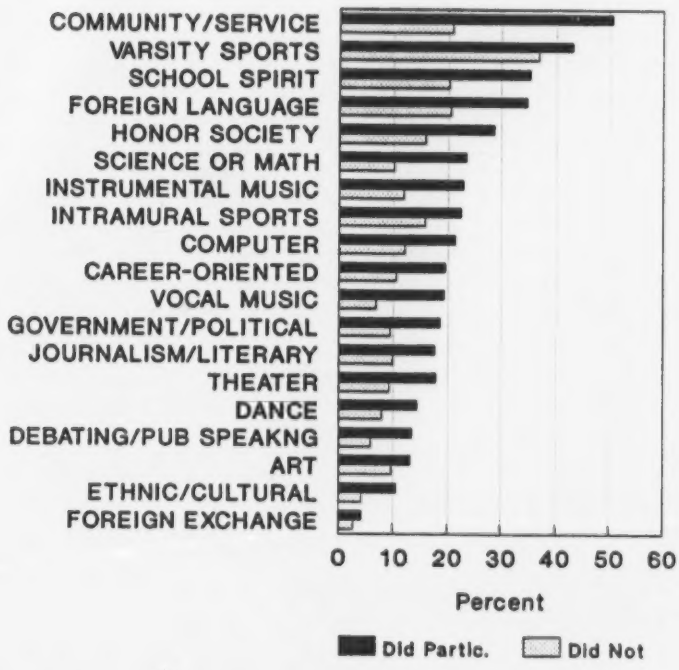
From this table we see that religious activities and organizations tended to draw a somewhat higher proportion of females and White students than there were in the general college-bound SAT population. In addition, participators tended to come from better educated families and families with higher average incomes. Nevertheless, more participators than nonparticipators planned to apply for financial aid. It is not surprising that more participators than nonparticipators attended a religiously affiliated high school. Participators not only came from better educated families, but were themselves higher academic achievers. The following table summarizes the academic backgrounds and aspirations of students who participated in religious activities compared with those who did not.

	Participated in religious activities	Did not participate in religious activities
Mean grade point average (GPA)	3.20	2.96
Mean verbal SAT score	448	414
Mean mathematics SAT score	497	468
Self rating above average in math	60%	50%
Self rating above average in writing	65%	53%
Self rating above average in science	57%	46%
Taking honors courses	49%	35%
Seeking a master's as highest degree	30%	26%
Seeking a doctorate as highest degree	23%	17%

The average participator scored higher than three-quarters of the SAT population as a whole. The average participator had a solid B average in high school, whereas the average nonparticipator was just slightly under a B. Participators had higher aspirations and were taking more honors courses in preparation for college.

What are at least as important as academic achievement are the responses to questions that reflect student values and interests. We found that students who participated in religious activities also tended to participate to a large extent in other activities, ranging from community service to science clubs to dance activities. The next graph compares the percentage of participators with the percentage of nonparticipators who were involved in each of the other activities listed in the SDQ.

Secular Activities of Students Who Participated in Religious Activities Compared with Those Who Did Not



Based on activities in which SAT takers participated in the eleventh grade.

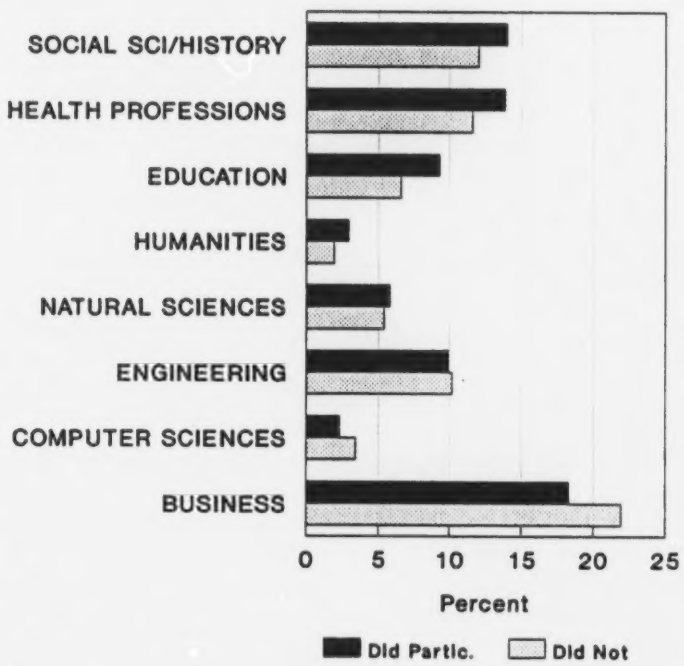
The solid bars show the percent of participators who also participated in each of the other activities. The shaded bars show the same information for nonparticipators. It is clear from the graph that students who participated in religious activities also participated to a high degree in all other activities. Striking too was the difference in participation rates in community or service activities. Nearly 51% of the students who participated in a religious organization also participated in a community or service activity. Only 21% of students who did not participate in a religious organization participated in a community or service activity.

The graph also shows large differences between participators and nonparticipators in several other specific activities -- vocal music, science or mathematics activities (such as clubs), ethnic or cross-cultural activities, and debating or public speaking. For each of these activities, the percentage of participators in religious activities was more than double the percentage of nonparticipators.

The fact that so many students who participated in religious organizations also participated in community or service activities may suggest a desire to interact with other people in a meaningful way -- in a way that makes a contribution to the community or to society. If this interpretation is correct, we might also expect participators to select college majors that are consistent with their values, i.e, majors that lead to professions in which they will be a service to society. Research has shown that students who place a high value on money tend to major in business or engineering, whereas those who are less concerned with the financial returns of their degree are more likely to major in social sciences or humanities (Polachek, 1978). We would therefore expect students participating in religious activities to have more humanitarian and less materialistic values and for greater numbers to major in education, humanities, and social sciences.

Tabulation of first-choice major field selections confirms these expectations. The graph below, presented in the same format as the previous one, compares the major field areas selected by participators and nonparticipators.

Major Field Selections of Students Who Participated in Religious Activities Compared with Students Who Did Not



Based on major field preferences of SAT takers in 1990.

The first four pairs of bars show that a disproportionately high percentage of students participating in religious activities planned to major in social sciences, health professions, education, and the humanities. These four broad areas attracted 40% of the participators and 32% of the nonparticipators. Both the natural sciences and engineering attracted nearly equal percentages of participators and nonparticipators (about 16% of each). Computer sciences and business attracted a disproportionately high number of nonparticipators. It is worth noting, however, that business attracted the highest percentage of students, both participators (18%) and nonparticipators (22%).

It is also evident that not many students in 1990 planned to major in the humanities. Decades ago, this was not the case. Subjects like English and foreign languages were common major fields. With increasing diversity of occupations, due in part to growing technology, but also due to greater environmental awareness, concern over public welfare and safety, and general improvement in the quality of life, the options have greatly expanded. As a result, we have created entirely new fields and hundreds of specialties, including for example, computer science, international relations, wildlife management, medical records technology, bioengineering, plastics technology, sports medicine, family relations, safety administration, and African studies. As the number of options increases, the proportion of people choosing any particular option can be expected to decrease.

The following table shows the numbers of students in the 1990 SAT population who planned to major in religion-related fields:

Major Field	Did Participate	Did Not Participate	Total
Philosophy, religion, theology (general)	312	135	447
Philosophy	240	621	861
Religious education	547	95	642
Religious studies	595	101	696
Theology & theological professions	705	142	847
Total	2,399	1,094	3,493

Among the students planning to major in the humanities, very few indeed selected religion or philosophy. Among the more than one million students taking the SAT in 1990, only 3,493 (0.3%) planned to major in any field within philosophy, religion, or theology. Of those fields, 861 chose philosophy, which may or may not have a religion component. A comparison of participators and nonparticipators in their choices of religion or philosophy as major fields yields results that are not surprising. Nonparticipators most frequently chose philosophy; participators most often chose theology.

It is important to realize, however, that a person need not major in religion or theology to enter the ministry. Whereas an early interest in ministry as a profession may be a fair predictor of who will become a minister, we have no hard evidence that "early bloomers" make

the most effective clergy. Some of our research, in fact, suggests that religion and theology majors planning to earn Master of Divinity degrees may be less well prepared academically than students with bachelor's degrees in other areas (Grandy and Greiner, 1990). Based on recent survey of 2,750 entering seminarians, only about ....earned their bachelor's degrees in religion or theology (O'Neill and Grandy, in preparation). With increasing numbers of older and second-career individuals entering ministry, it is quite clear that an early interest in the profession is far from necessary for the eventual choice of ministry as a career.

Comparisons among Denominations. We might expect that the type of student who participates in religious activities and organizations will be different from one denomination to the next, or certainly between broad religious traditions. Undoubtedly there are differences in matters of theology and perhaps in beliefs regarding the role religion plays, or might play, in people's lives. But we found remarkable consistency in our comparisons of students in the SAT data base.

As we showed earlier, the percentage of students participating in religious activities varied considerably across denominations. Nevertheless, when we compared participators with nonparticipators, within each denomination, we found patterns that applied to all denominations.

For each and every denomination, including "No preference or affiliation," **the average SAT scores and grade point averages were considerably higher for participators than nonparticipators**. The differences were statistically significant in all cases.

For each and every denomination, including "No preference or affiliation," **there were significant differences in the participation rates in all activities**. Participation in community or service activities, in particular, was significantly higher for participators in religious activities than for nonparticipators.

For all denominations in the Christian and Jewish traditions, **more participators than nonparticipators were considering attending a religiously affiliated college or university**. For most denominations the differences were quite large and statistically significant. For example, among members of the Church of the Nazarene, 50% of participators and 16% of nonparticipators were considering a religiously affiliated college. Presbyterians were fairly typical of the entire SAT population with 26% versus 10%. Among Unitarians, at the lower end, only 11% of participators and 7% of nonparticipators were considering religiously affiliated colleges.

For nearly all denominations in the Christian and Jewish traditions, **more participators than nonparticipators planned to major in humanities and in education. Fewer planned to major in business**. The only exceptions were in two very small denominations where the differences were negligible. Some denominations showed very great differences between participators and nonparticipators in their major field selections. For example, among members of the Assembly of God, 18% of participators and 26% of nonparticipators planned to major in business. Among the Disciples of Christ, these figures were 26% versus 33%. Differences in numbers planning to major in humanities were larger for some denominations as well. Among Christian Science students, 7% of participators and 4% of nonparticipators planned to major in humanities. These figures were 7% and 2% respectively for members of the Assembly of God, and 6% versus 2% for members of the Church of the Nazarene.

Denominational Case Studies

Results of most of the analyses we have presented so far apply across denominations, and most are of interest to all denominations. There are some differences, however, in the specific problems and concerns of each denomination. For this reason, we conducted a number of case studies of particular denominations. The two studies we will report here are of Presbyterian students and Roman Catholic students.

In some ways, the Catholics and the Presbyterians have opposite problems. The Presbyterian Church has such a surplus of clergy that, on any particular day, over 2,000 ministers are vying for about 600 openings in the church (O'Neill & Murphy, 1991). On the other hand, the Roman Catholic Church is the only major denomination with an acute shortage of clergy. The number preparing for the priesthood dropped from 42,000 in 1966 to 8,394 in 1990 (O'Neill & Murphy, 1991). Despite their differences in "supply and demand," both denominations are equally concerned with attracting high quality students into the clergy.

The Presbyterian Profile. Analyses of the Presbyterian Church focussed on student participation in religious activities throughout the high school years, attempting to identify the types of students who remain in church activities compared with students who drop out. The analyses addressed questions in five general areas:

- **Extent of participation in religious activities or organizations**

  How many participated each year during high school, and how many planned to participate during college?

  Did high-scoring students participate more or less than the total body of Presbyterian students?

  Was there a decline or rise in participation during high school?

- **Comparison of students who participated in religious activities or organizations during ninth grade with students who did not participate**

  How did the two groups compare in socioeconomic status (SES), academic achievement and aspirations, extracurricular activities, and intended college major?

- **Attrition rate of the group who participated in religious activities in ninth grade**

  Of the group who participated in ninth grade, how many remained by tenth, eleventh, and twelfth grades?

  When did the greatest attrition occur?

  How many planned to continue in college?

- **Academic characteristics of students who continued to participate after ninth grade**

Did the students who continued to participate after ninth grade differ academically from those who dropped out?

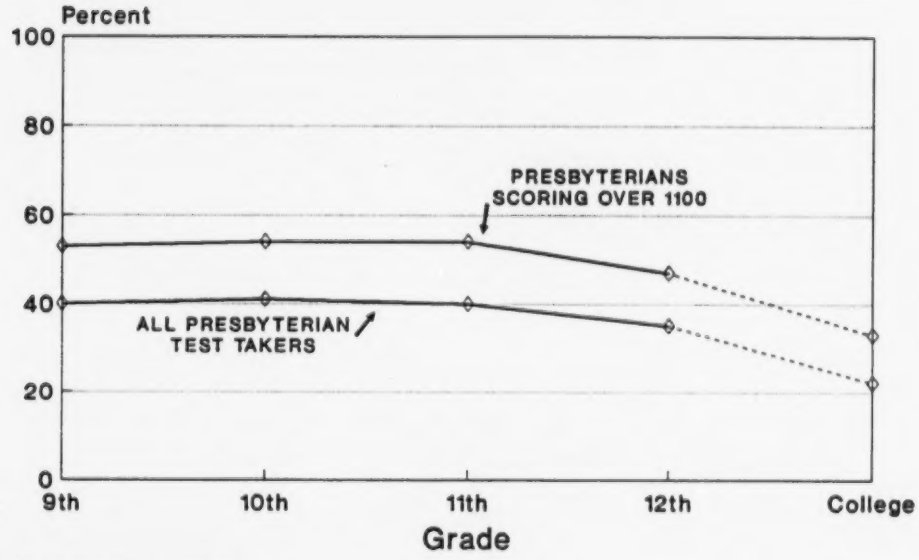
Findings showed that during the academic year 1989/90, 40,688 SAT takers identifying themselves as Presbyterians took the SAT. All of these students were either seniors or juniors who did not retake the exam their senior year. Twenty-six percent were in this category of juniors.

Earlier in this report we mentioned that students who take the SAT are not typical high school students. Most are planning to attend four-year colleges or universities. In the Presbyterian sample, this figure was 93%. A majority of SAT takers live on the east and west coasts. In the Presbyterian sample, 29% came from the middle Atlantic states, 26% from the southeast, and 21% from the west. The remaining quarter of the sample came from the midwest, southwest, and New England. The two states most frequently represented were Pennsylvania (13%) and California (12%). Thus students from these two states constituted one quarter of the Presbyterian sample. Finally, 94% were U.S. citizens, 85% were white, and 53% were female.

The first analysis looked at the percentage of test takers who reported participating in religious activities during each year of high school and the percentage who planned to participate during college. **Of the entire Presbyterian sample, equal proportions (about 40%) participated in religious activities each year from ninth to eleventh grade, but by twelfth grade, the number had declined to 35%. Only 22% planned to participate in religious activities in college.**

High-scoring students participated in religious activities more frequently than did lower scoring students. From the total sample of 40,688 Presbyterians, we selected students who scored very high on the SAT. Nearly 10,000 students had combined verbal and mathematics scores of 1100 or higher. The following graph illustrates that of those high-scoring students, approximately 54% participated in religious activities in ninth through eleventh grades. Their numbers also declined by twelfth grade, to 47%. Thirty-three percent of this high-scoring group planned to participate in religious activities in college.

Religious Activity Participation Rate of Presbyterian Test Takers



Based on religious activity of Presbyterians taking the SAT in 1989/90

Although high-scoring students participated in religious activities at a much higher rate than did the total body of Presbyterian students, their participation declined at about the same rate as everyone else's.

The next set of analyses resembled the analyses performed on the total SAT population, comparing participators with nonparticipators in religious activities in eleventh grade. A difference in the analyses of Presbyterian test takers was that it used students who reported that they participated in religious activities in ninth grade. We compared those who participated with those who did not participate to see what differences we could find between these two groups.

Slightly more females than males participated. Fifty-seven percent of the participants were female. **Participants came from higher SES families.** Among participants, 71% of fathers and 57% of mothers had at least a four-year college degree; 66% had parents who earned more than $40,000 annually. In contrast, among nonparticipants, only 58% of fathers and 43% of mothers had four-year degrees, and 60% earned more than $40,000.

Students who participated in a religious activity in ninth grade were more academically oriented than those who did not participate. As seniors, 56% of participants (in ninth grade) and only 38% of nonparticipants (in ninth grade) had taken honors courses in high school. Twenty-five percent of participants planned to seek a doctorate as their highest degree, whereas only 17% of nonparticipants had such high aspirations. The average test scores and grades were also higher for those who had participated in religious activities in ninth grade. Participants averaged 470 in SAT verbal and 528 in SAT mathematics, whereas nonparticipants averaged 431

and 487, respectively. The mean self-reported grade point average for participants was 3.26; the mean for nonparticipants was 3.01.

We also compared these two groups on their participation in other activities and found that **students who participated in religious activities also tended to participate more in all other kinds of activities.** In particular, 44% of the participants in religious activities in ninth grade also participated in community or service activities that year. Only 17% of nonparticipants in religious activities were involved in community service work.

The other areas in which religious-activity participants were especially active were instrumental and vocal music, foreign languages, school spirit activities, and science or math clubs. Some activities drew very few students, but students participating in religious activities were drawn far more than average to one in particular, namely, ethnic and cultural activities.

Analysis of the SAT population had shown a relationship between religious participation in eleventh grade and choice of major field. Whether religious participation in ninth grade would relate to choice of major field as a senior was a question we also explored. We found that **as seniors, students who had participated in religious activities in ninth grade more often planned to major in humanities, social sciences and education than did students who had not participated, and they less frequently planned to major in business.**

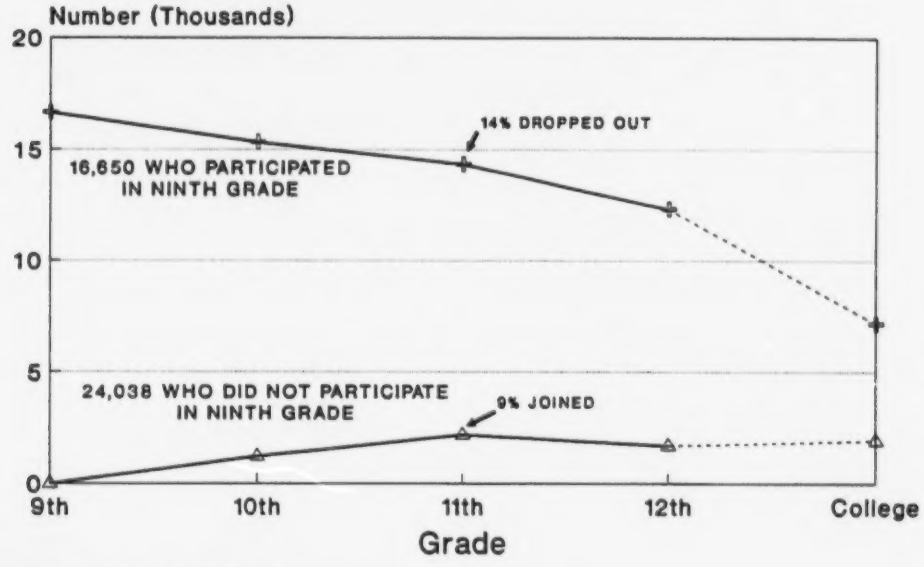
Traditional fields included in the humanities--such as English, foreign languages, philosophy, and religion--currently attract very few students. In the Presbyterian sample, 3.3% of those who participated in religious activities in ninth grade planned to major in the humanities, whereas only 1.9% of nonparticipants chose humanities. Differences in the selection of social sciences, history, and education were not so large, but participants chose each of those areas with greater frequency than did nonparticipants. Social sciences were selected by 14.6% of participants and 12.1% of nonparticipants; education was selected by 8.8% of participants and 7.3% of nonparticipants.

Business still holds the greatest attraction for college-bound high school seniors, but students who participated in religious activities chose business less frequently. Eighteen percent of participants and 23% of nonparticipants planned to study business.

The analyses just discussed compared those who participated in religious activities in ninth grade with those who did not, and the relationship of that participation to decisions made as seniors. What we have not done so far is to follow religious participation from ninth grade through high school, tracking level of participation in subsequent grades.

We saw earlier that the percentage of Presbyterians participating in religious activities was about the same in ninth, tenth, and eleventh grades. In actuality, some students dropped out after ninth grade while others began participating after ninth grade. The numbers balanced fairly well. About 1,000 ninth-grade participators dropped out by tenth grade, and about 1,000 nonparticipators joined religious activities in tenth grade. The same thing happened between tenth and eleventh grades--1,000 or so dropped out and 1,000 or so joined. By twelfth grade, essentially no one new joined, but another 1,000 dropped out. A greater number planned to drop out when they entered college. The result of this exchange is shown below.

Changes in Participation Rate of Presbyterians after Ninth Grade



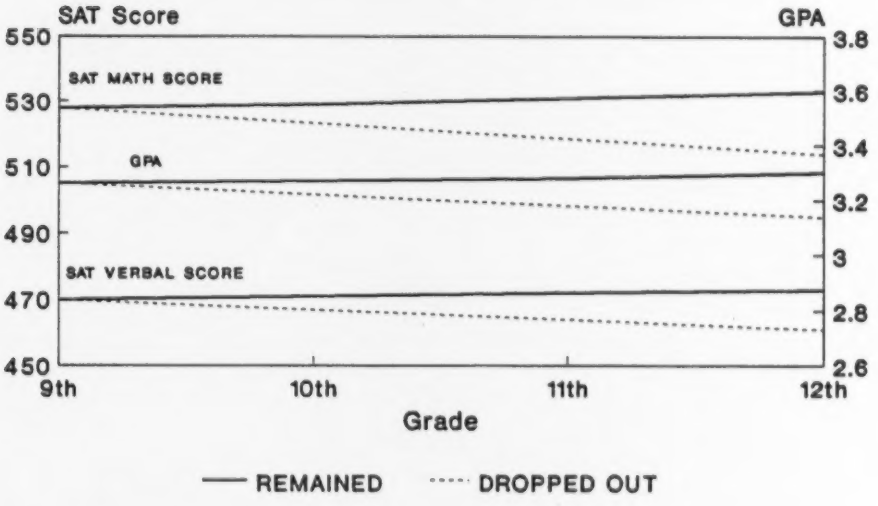
Based on religious activity of Presbyterians who took the SAT in 1990

By eleventh grade, roughly 2,300 (14%) of the students who participated in ninth grade had dropped out. Although nearly 2,200 previous nonparticipators had joined religious activities by eleventh grade, they constituted only 9% of the original nonparticipator pool (because it was a much larger pool of students). The result was a greater relative attrition from the pool of ninth grade participants than the growth in activity arising from the pool of ninth grade nonparticipants. The conclusion seems to be: **If students have not begun to participate in religious activities by ninth grade, they are unlikely to do so at a later time.**

We focussed our next analysis on just those 16,650 students who reported that they participated in religious activities in ninth grade. How did the students who remained in religious activities compare academically with those who dropped out at various times throughout high school?

The students who remained in religious activities tended to be those who earned higher test scores and grades than the ones who dropped out. It is important to keep in mind that the statistics are averages. Students at all academic levels dropped out, and students at all levels continued. But there was a slight imbalance favoring the higher academic students remaining in religious activities. The senior year scores and grades of students still participating, compared with those who dropped out each year, are graphed below.

Senior Year Scores and Grades of Presbyterians Still Participating Compared with Those Who Dropped Out



Based on religious activity of Presbyterians who took the SAT in 1990

The verbal score average of students remaining in religious activities through twelfth grade was 473. The average for those who dropped out sometime after ninth grade was 461.

The mathematics score average of students remaining in religious activities was 533; the average for those who dropped out sometime after ninth grade was 514.

The mean grade point average of students remaining in religious activities through twelfth grade was 3.30. The mean for those dropping out was 3.14.

The results of this study yielded both good and bad news for the Presbyterian Church. The bad news was that sizable numbers of college-bound Presbyterian young people never participate in religious activities in high school. Of those in the sample who participated in ninth grade, 14% dropped out by eleventh grade and only 43% planned to participate in religious activities in college.

The good news was that the students who remained in religious activities tended to be the higher academic achievers. Furthermore, those who participated in religious activities also participated in other types of activities, especially community service. They tended to choose college majors that reflect greater humanitarian concerns, such as the humanities, social sciences, and education, and they were less likely to choose business--a field generally selected for its perceived financial payoff.

An outcome of the case study was the suggestion that the Presbyterian Church consider conducting research into the reasons students have for participating in religious activities--and their reasons for leaving. Among their motives for participating may be an interest in religion, social activities, opportunities for leadership, and opportunities for community service. These are all very different incentives. Perhaps by anonymously surveying a sample of Presbyterian young people, the church could determine how well its programs are meeting the needs of various types of youth. The resulting information could help guide Christian education leaders in the creation, elimination, and enhancement of programs for college-bound students.

The Roman Catholic Profile. In the 1990 SAT database, 288,088 students (26% of the SAT population) identified themselves as Roman Catholic. Ninety-three percent of Roman Catholics were U. S. citizens, 76% were White, and 81% reported that English was their first language. Forty-three percent of fathers and 29% of mothers had at least a bachelor's degree.

Like other SAT takers, nearly all Roman Catholics (91%) planned to attend a four-year college or university. Eighteen percent hoped to eventually earn a doctorate. Again, it is important to keep in mind that the sample we studied was not necessarily typical of Roman Catholic students; they were generally those academic students applying to better-than-average colleges and universities.

Twenty-eight percent of Roman Catholics in the SAT population indicated that they were attending a religiously affiliated high school. We assume that virtually all Catholic students in religiously affiliated schools were attending Catholic schools specifically. Those few who might have been attending schools run by other denominations (such as Quakers) were probably too small to affect statistical summaries. Nevertheless, in this report, we will refer to the schools as "religiously affiliated."

The following table summarizes the demographic and academic differences between students attending religiously affiliated schools and those attending public schools.

	Religiously Affiliated High School	Public High School
Number	73,087	175,402
U. S. citizens	97%	95%
Female	52%	55%
White	78%	78%
Fathers with 4-year college degree	47%	41%
Mothers with 4-year college degree	33%	28%
Income greater than $40,000	57%	50%
Seeking a doctorate as highest degree	20%	18%
Average SAT verbal score	440	420
Average SAT mathematics score	476	475

These statistics show that there were small but real differences in the socioeconomic status of students who attended religiously affiliated schools and those who attended public schools. Parents of students in religiously affiliated schools had higher earnings and more

formal education, on the average. Verbal test scores were just slightly higher for students in religiously affiliated schools, but the difference was quite small, and there was no difference in mathematics score averages.

Parents may send their children to religiously affiliated schools for many reasons. One important reason is for moral and religious development. While the SAT database has no information that can directly assess moral or religious growth, it does have the questions on religious participation and community service that we examined earlier. The following table compares Catholic students in religiously affiliated schools with those in public schools on participation in religious and community activities in the eleventh grade, plans to participate in these activities in college, plans to attend a church affiliated college, and plans to major in several broad fields of study.

	Religiously Affiliated High School	Public High School
Participation in religious activity in grade 11	34%	27%
Participation in community service in grade 11	43%	30%
Plan participation in religious activity in college	14%	12%
Plan participation in community service in college	34%	27%
Considering a religiously affiliated college	32%	15%
Plan major in humanities	2%	2%
Plan major in education	7%	8%
Plan major in social sciences	14%	13%
Plan major in business	24%	21%

Students attending religiously affiliated schools reported greater participation in religious activities (34% versus 27%) and far greater participation in community and service activities (43% versus 30%). Their plans to participate in community or service activities in college were also higher than they were among students in public high schools (34% versus 27%). The percentage considering attending a religiously affiliated college was more than double (32% versus 15%). However, **the number planning to participate in a religious activity in college was essentially the same for students in religiously affiliated schools as for students in public schools.**

We find very little difference in choice of major field aside from a slightly larger percentage of students in religiously affiliated schools planning to major in business (24% versus 21%). As for choice of religion as a major, only a minuscule number of students in either school setting chose religion or theology. Among the more than 73,000 students in religiously affiliated schools, only 13 chose religious education, 14 chose religious studies, and 39 chose theology or theological professions. Among Catholic students in public schools (who outnumber the other group more than 3-to-1), 16 planned to major in religious education, 15 in religious studies, and 37 in theology or theological professions. **Roman Catholic high school students who take the SAT, whether they attend religiously affiliated or public schools, are showing less interest in the field of religion than their mainline Protestant counterparts.**

In addition to studying the total sample of Catholic students in religiously affiliated schools, we subdivided the sample by race and gender to see if any particular ethnic group or either gender participated more than others in religious or community service.

Religious Interest and Participation among
Catholic SAT Takers in Religiously Affiliated High Schools

	White	American Indian	Asian	Black	Mexican American	Puerto Rican	Other Hispanic
Number	60,773	571	3,879	2,347	2,842	2,304	4,015
Percent Female	51%	50%	49%	55%	53%	54%	56%
Religious activity grade 11	33%	35%	37%	30%	36%	32%	34%
Community service activity	42%	38%	49%	40%	45%	35%	42%
Plan religious participation in college	13%	10%	16%	10%	16%	11%	15%
Plan community s[illegible] in college	33%	28%	42%	32%	40%	31%	37%
Considering religiously affiliated college	32%	23%	33%	23%	29%	25%	26%

The percentage of students who participated in religious activities in high school was about the same for all groups -- between 30% and 37%. More students in every group participated in community and service organizations than in religious activities. Community and service activities ranged from 35% for Puerto Ricans to 49% for Asians. Similarly, the percentage who planned to participate in religious activities in college was quite small, ranging from 10% for American Indians and Blacks to 16% for Asians and Mexican Americans. Plans to participate in community and service activities in college was considerably higher, ranging from 28% for American Indians to 42% for Asians. The percentage considering attending a church affiliated college ranged from 23% for American Indians and Blacks to 33% for Asians.

White students appear to have been very similar to minorities in terms of their commitment to religious and community activities, and their interest in attending a religious college. If any group stands out, it is the Asians. **Interest in community service and religious activities, as well as the possibility of attending a religiously affiliated college, was highest among the Asian sample.**

Summary of Findings

In the SAT population as a whole, students who participated in religious activities were, on the average, of a higher socioeconomic status than were nonparticipators. They earned better grades in high school, and scored higher on the SAT. Students participating in religious activities were involved in all types of other activities as well, especially in community and service activities. Participators tended to chose college majors that were more in keeping with their already demonstrated interest in the community and in humanitarian, educational, scientific, and/or social concerns.

Based on a case study of Presbyterian students, those who participated in religious activities in ninth grade had higher average grades and test scores than those who did not

participate. Furthermore, those who dropped out of religious activities later in high school had, on the average, somewhat lower grades and test scores than the students who continued. Presbyterian students who were not participating in religious activities or organizations by ninth grade generally did not join later in high school.

A smaller percentage of Roman Catholic students participated in religious activities than did SAT takers as a whole. Catholic students attending religiously affiliated high schools participated in religious activities at about the same rate as mainline Protestant students attending all types of schools.

Roman Catholic students attending religiously affiliated schools reported greater participation in religious activities and community activities than did Catholic students in public schools, but the number planning to participate in religious activities in college was not significantly higher for those attending religiously affiliated schools than for those in public schools.

A comparison among Roman Catholic ethnic groups attending religiously affiliated schools showed Asian Americans reporting the highest levels of participation in religious activities in high school, participation in community service activities in high school, intention to participate in religious activities in college, and intention to attend a religiously affiliated college.

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O'Neill, J. P., & Murphy, R. T. (1991). Changing age and gender profiles among entering seminary students: 1975-1989. *Ministry Research Notes: An ETS Occasional Report.* Princeton, NJ: Educational Testing Service.

Polachek, S. W. (1978). Sex differences in college major. *Industrial and Labor Relations Review, 31,* 498-508.

Appendix

Student Descriptive Questionnaire (SDQ)

Student Descriptive Questionnaire (SDQ)

Record your answers to the Student Descriptive Questionnaire on pages 2 and 3 of your Registration Form.

Although completing the SDQ is voluntary, it enables you to send colleges information about your interests, activities, and plans, along with your test scores. Your responses may help counselors and admissions officers to advise you about your college plans. Your answers to most questions will appear on the score reports that will be sent to you, your high school, and colleges and scholarship programs you name to receive reports. Your answers to other questions (the questionnaire identifies which ones) will *not* appear on any score reports but will be used for research and planning by educational institutions. You are encouraged to answer all questions, but you may skip any question you wish. Most of the questions are addressed to students still in high school. If you are no longer in school, answer them as well as you can.

Making Changes in Your SDQ

You need to complete this SDQ only once. If you register for a subsequent test date, you can change those answers that you want updated. However, you must answer the entire question because your new answer will completely replace your previous answer. For example, if you have taken a calculus course since the last time you answered the SDQ and want to update your SDQ by including this information, you must record all your previous math courses as well as calculus, even though you recorded these courses the first time you answered the SDQ. Your previous answers to all other questions will continue to be reported as they were to high schools and colleges.

You can make changes in your SDQ at any time by calling College Board ATP, 609-771-7600.

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1. **Indicate the total number of years of high school courses (in grades 9 through 12) you have taken or plan to take in each of the subjects listed below.** If you have not taken any course in a subject and do not plan to take one in high school, fill in the oval in the "None" column. If you repeat a course, count it only once. If one (or more) of the courses is an advanced placement, accelerated, or honors course, fill in the oval in the "Honors" column.

   Arts and Music (for example, art, music, art history, dance, theater)
   English (for example, composition, grammar, or literature)
   Foreign and Classical Languages
   Mathematics
   Natural Sciences (for example, biology, chemistry, or physics)
   Social Sciences and History (for example, history, government, or geography)

In questions 2-5, using the same guidelines as in question 1, **indicate the total number of years you have taken or plan to take the *specific courses* listed.**

2. **Foreign and Classical Languages**

   French
   German
   Greek
   Hebrew
   Italian
   Latin
   Russian
   Spanish
   Other language courses

3. **Mathematics**

   Algebra
   Geometry
   Trigonometry
   Precalculus
   Calculus
   Computer Math
   Other mathematics courses

4. **Natural Sciences**

   Biology
   Chemistry
   Geology or related Earth or Space Sciences
   Physics
   Other science courses

5. **Social Sciences and History**

   U.S. History
   U.S. Government or Civics
   European History
   World History or Cultures
   Ancient History
   Anthropology
   Economics
   Geography
   Psychology
   Sociology
   Other social science or history courses

6. **Please enter the *average* grade for all courses you have already taken in each subject.**

   If only pass-fail grades were assigned and you received a passing grade, fill in the oval in the "Pass" column. Do not fill in a grade oval if you fill in a "Pass" oval.

   - A or excellent (usually 90-100)
   - B or good (usually 80-89)
   - C or fair (usually 70-79)
   - D or passing (usually 60-69)
   - E or F or failing (usually 59 or below)
   - Pass

   Arts and Music
   English
   Foreign and Classical Languages
   Mathematics
   Natural Sciences
   Social Sciences and History

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For questions 7 through 9, please provide information about the content of some of your high school courses and related activities out of class. (You may mark more than one in each subject area.)

7. **English** course work or experience

   a. American Literature
   b. British Literature
   c. Composition
   d. Grammar
   e. Literature of a country other than the United States or Britain
   f. Literature of different historical periods
   g. Speaking and listening skills
   h. English as a second language

8. **Art and Music** course work or experience

   a. I have had no course work or experience in this area.
   b. Acting or the production of a play
   c. Art history or art appreciation
   d. Dance
   e. Drama or theater for appreciation
   f. Music history, theory, or appreciation
   g. Music, instrumental or vocal performance
   h. Photography or filmmaking
   i. Studio art and design

9. **Computer** course work or experience

   a. I have had no course work or experience in this area.
   b. Computer literacy, awareness, or appreciation
   c. Data processing
   d. Computer programming (BASIC, COBOL, FORTRAN, PASCAL, etc.)
   e. Use of the computer to solve math problems
   f. Use of the computer to solve problems in the social sciences
   g. Use of the computer to solve problems in the natural sciences
   h. Use of the computer in English courses
   i. Word processing (use of the computer in writing letters or preparing papers)

10. **Please indicate your cumulative grade point average** for all academic subjects in high school.

   - A+ (97-100)
   - A (93-96)
   - A– (90-92)
   - B+ (87-89)
   - B (83-86)
   - B– (80-82)
   - C+ (77-79)
   - C (73-76)
   - C– (70-72)
   - D+ (67-69)
   - D (65-66)
   - E or F (below 65)

11. **What is your most recent high school class rank?** (For example, if you are 15th in a class of 100, you are in the second tenth.) If you do not know your rank, please check with your high school guidance counselor. If rank is not used in your school, give your best estimate.

   a. Highest tenth } in the
   b. Second tenth } top fifth
   c. Second fifth
   d. Middle fifth
   e. Fourth fifth
   f. Lowest fifth

12. In addition to regular class work, many students are involved in activities that reflect their abilities and interests. These include community service and involvement, extracurricular and out-of-school activities, and individual endeavors. **Indicate in which grades you participated or will participate in the activities listed below.**

   If you held a major office or position of leadership in an activity (for example, class president, varsity team captain, officer of a statewide organization), fill in the oval in the "Officer" column. Remember to include activities and accomplishments that are not school sponsored as well as your extracurricular activities.

   If you have received an award or special recognition for achievement in an activity (for example, school prize for music or writing, varsity letter, regional science fair prize, state orchestra), fill in the oval in the column marked "Award."

   - Academic honor society
   - Art activity
   - Athletics: Intramural, junior varsity, or community sports
   - Athletics: Varsity or amateur-level sports
   - Career-oriented activity (for example, Future Teachers of America, Future Farmers of America, Future Homemakers)
   - Community or service activity (for example, volunteer work, neighborhood clean-up or patrol group, Scouting, 4-H, Key Club)
   - Computer activity (for example, a user's group, computer club, learning to use a computer on your own)
   - Dance activity
   - Debating or public speaking
   - Ethnic or cross-cultural activity (for example, Black student organization, Hispanic club, international folk dancing)
   - Foreign exchange or study abroad program
   - Foreign language activity
   - Government or political activity (for example, student government, honors council, working on a political campaign, human rights or civil rights activity in your community)
   - Journalism or literary activity (for example, creative writing, yearbook, school newspaper, community newspaper)
   - Junior Reserve Officers Training Corps
   - Music: Instrumental (for example, high school band, community orchestra, solo work)
   - Music: Vocal (for example, glee club, chorus, solo work)
   - Religious activity or organization
   - Science or mathematics activity (for example, math club, ecology or environmental group, science fair project)
   - School-spirit activity (for example, cheerleading, drill team)
   - Theater activity (for example, community or school production, acting, stage crew)
   - Work: Cooperative work program
   - Work: Part-time job, not school related
   - Other activity not listed
   - I have not participated in any of the above activities.

13. **Please indicate the sports in which you have participated.** (You may mark up to six sports.)

   - I have not participated in any sports.

   a. Archery
   b. Badminton
   c. Baseball
   d. Basketball
   e. Bowling
   f. Boxing
   g. Cross-country
   h. Diving
   i. Fencing
   j. Field hockey
   k. Football
   l. Golf
   m. Gymnastics
   n. Handball
   o. Horseback riding
   p. Ice hockey
   q. Lacrosse
   r. Paddleball
   s. Racquetball
   t. Riflery
   u. Rowing (crew)
   v. Rugby
   w. Sailing
   x. Skiing
   y. Skin diving
   z. Soccer
   0. Softball
   1. Squash
   2. Swimming
   3. Table tennis
   4. Tennis
   5. Track and field
   6. Volleyball
   7. Water polo
   8. Wrestling
   9. Other

Questions 14 through 19 ask about the kind of college or university you are interested in attending during your first year in college. There are no "right" or "wrong" answers, and you may mark as many preferences as you like. If you do not have an idea about the kind of college or university you'd like to attend, fill in the last oval, "Undecided."

14. **What type(s) of institution are you interested in attending?** (You may mark more than one.)

    a. A four-year college or university
    b. A two-year community or junior college
    c. A vocational/technical school
    d. Undecided

15. **Which of the following are you considering?** (You may mark more than one.)

    a. A public university, state college, or community college
    b. A private university, college, or junior college (not religiously affiliated)
    c. A private, religiously affiliated university, college, or junior college
    d. Undecided

16. **What size college(s) are you thinking of attending?** (You may mark more than one.)

    a. Less than 1,000 students
    b. About 1,000 to 5,000 students
    c. About 5,000 to 10,000 students
    d. About 10,000 to 20,000 students
    e. More than 20,000 students
    f. Undecided

17. **What college setting(s) do you prefer?** (You may mark more than one.)

    a. Large city or metropolitan area
    b. Medium-size city
    c. Small city or town
    d. Suburban community
    e. Rural
    f. Undecided

18. **Where would you like to go to college?** (You may mark more than one.)

    a. Close to home
    b. In my home state
    c. In a state bordering mine
    d. Beyond states bordering mine
    e. Outside the United States
    f. Undecided

19. **What type(s) of college are you considering?** (You may mark more than one.)

    a. All women or all men
    b. Coeducational
    c. Undecided

20. **What is the highest level of education you plan to complete beyond high school?** (Mark only one.)

    a. Specialized training or certificate program
    b. Two-year associate of arts or sciences degree (such as AA, AAS, or AS)
    c. Bachelor's degree (such as BA or BS)
    d. Master's degree (such as MA, MBA, or MS)
    e. Doctoral or related degree (such as PhD, JD, MD, DVM)
    f. Other
    g. Undecided

A list of both general (bold type) and specific majors or areas of study in college is on page 15. Related areas or majors are indicated in parentheses. Although you do not need to know what your "major" in college will be, we would like you to mark the subject area or areas that interest you. In questions 21, 23, 24, 25, and 26 you may indicate the specific or general areas of study that you are considering. *If you have none,* please fill in number 999 (Undecided).

21. **Indicate the major or area of study that is your first choice.** Write in the code number and fill in the appropriate oval under each digit.

22. **How certain are you about your first choice of major or area of study?**

    - Very certain
    - Fairly certain
    - Not certain

23-26. **Indicate up to four other majors or areas of study that interest you.**

27. The College Board sponsors various services and publications to help students and their families plan for college. Occasionally, we may want to notify you of these opportunities. **Would you and your family like to receive announcements about these services and publications?**

    - Yes
    - No

28. **Is your parent's address the same as your mailing address on this Registration Form?**

    - Yes
    - No

29. Some colleges allow well-prepared students to skip required introductory courses and take advanced course work instead. This exemption is sometimes based upon the results of tests such as Advanced Placement Examinations, Achievement Tests, and tests of the College-Level Examination Program. Some colleges give their own placement or "credit by examination" tests. **Mark each subject area in which you plan to apply for advanced placement, credit by examination, or exemption from courses.**

    a. Art
    b. Biology
    c. Chemistry
    d. Computer Science
    e. English
    f. Foreign Languages
    g. Humanities
    h. Mathematics
    i. Music
    j. Physics
    k. Social Studies
    l. I don't plan to apply for exemption from these courses.

30. You may want to receive help outside regular course work from the college you plan to attend. **If so, indicate each area in which you may want help.**

    a. Developing educational plans
    b. Developing vocational/career or placement plans
    c. Developing better study skills
    d. Improving mathematical skills
    e. Improving reading skills
    f. Improving writing skills
    g. I don't plan to ask for help in these areas.

31. Below is a list of typical activities or clubs in which students participate in college. **Mark each activity you may want to take part in while in college.**

    a. Art
    b. Athletics: Intramural sports
    c. Athletics: Varsity sports
    d. Community or service organization
    e. Cooperative work or internship program
    f. Dance
    g. Debating or public speaking
    h. Departmental organization (club within my major)
    i. Drama or theater
    j. Environmental or ecology activity
    k. Ethnic activity

(list continues on next page)

l. Foreign study or study abroad program
m. Fraternity, sorority, or social club
n. Honors program or independent study
o. Journalism or literary activity
p. Music: Instrumental performance
q. Music: Vocal performance
r. Religious activity
s. Reserve Officers Training Corps (ROTC, AFROTC, or NROTC)
t. Student government

32. **Do you plan to apply for financial aid at any college?**

• Yes • No • I don't know.

33. **Do you plan to look for a part-time job while in college?**

• Yes • No • I don't know.

34. **Where do you plan to live during your first year in college?**

a. At home
b. On-campus housing
c. Off-campus housing
d. I don't know.

The College Board wants its tests and services to be fair and useful to all candidates. Research based on responses to questions 35 through 37 will help the College Board evaluate and improve its tests and services. Your responses to 35, 36A, and 37 will also be reported to the colleges you specify that accept such information.

35. **How do you describe yourself?** (Mark only one.)

a. American Indian or Alaskan native
b. Asian, Asian American, or Pacific Islander
c. Black or African American

Hispanic background:

d. Mexican American or Chicano
e. Puerto Rican
f. Latin American, South American, Central American, or other Hispanic
g. White
h. Other

36. Please answer both questions below about your language background.

36A. **What language did you learn to speak first?**

a. English only
b. English and another language
c. Another language

36B. **What language do you know best?**

a. English
b. English and another language about the same
c. Another language

37. **What is your citizenship status?**

a. U.S. citizen
b. Alien, refugee, or permanent resident of the U.S.
c. Citizen of another country

38. Colleges are often interested in contacting prospective students about their campus-based religious clubs and offerings. **Please write in the number of your religious preference or affiliation** and fill in the appropriate oval below each digit. If your religious preference or affiliation is not listed, please fill in number 97, "Other."

01 I prefer not to answer.
03 African Methodist Episcopal
05 Anglican
07 Assembly of God
09 Baptist
11 Southern Baptist Convention
13 Buddhism
15 Christian Church (Disciples of Christ)
17 Christian Reformed Church in America
19 Church of the Brethren
21 Church of Christ
23 United Church of Christ
25 Church of Christ, Scientist (Christian Science)
27 Church of God
29 Church of Jesus Christ of Latter-day Saints
31 Church of the Nazarene
33 Episcopal
35 Hinduism
37 Islam
39 Judaism
41 Lutheran Church in America
43 Lutheran Church-Missouri Synod
45 Mennonite
47 Methodist
49 United Methodist
51 Eastern Orthodox churches
53 Pentecostal
55 Presbyterian Church (U.S.A.)
57 Roman Catholic
59 Seventh-day Adventists
61 Society of Friends (Quaker)
63 Unitarian Universalist Association
65 Wesleyan Church
97 Other
99 No preference or affiliation

Your answers to questions 39 through 42 will *not* be included on your score report or on the reports sent to your high school or any colleges. Your answers to these questions may be used for research purposes or reports about groups of students, but only in ways that ensure your privacy.

39. **Please indicate any permanently disabling condition you have.**

a. None
b. Blindness or other noncorrectable visual impairment
c. Deafness or other hearing impairment
d. Paraplegia
e. Learning disability
f. Other neurological or orthopedic impairment
g. Multiple disabilities
h. Other
i. I prefer not to answer.

40. **How do you think you compare with other people your own age in the following three areas of ability?** For each area, fill in the appropriate response.

• Among the highest 10 percent in this area of ability
• Above average in this area
• Average in this area
• Below average in this area

Mathematical ability
Scientific ability
Writing ability

41. **Indicate the highest level of education completed by your father** (or male guardian) **and your mother** (or female guardian) by filling in the appropriate oval in each column. (Mark only one.)

a. Grade school
b. Some high school
c. High school diploma or equivalent
d. Business or trade school
e. Some college
f. Associate or two-year degree
g. Bachelor's or four-year degree
h. Some graduate or professional school
i. Graduate or professional degree

42. **What was the approximate combined income of your parents before taxes last year?** Include taxable and nontaxable income from all sources.

a. Less than $10,000
b. About $10,000 to $15,000
c. About $15,000 to $20,000
d. About $20,000 to $25,000
e. About $25,000 to $30,000
f. About $30,000 to $35,000
g. About $35,000 to $40,000
h. About $40,000 to $50,000
i. About $50,000 to $60,000
j. About $60,000 to $70,000
k. More than $70,000

College Majors by Academic Area of Study

100 Agriculture and Natural Resources
101 Agriculture business
102 Agriculture economics
103 Agriculture and farm management (farming and ranching)
104 Agriculture, forestry, and wildlife technologies
105 Agronomy (field crops and crop management)
106 Animal sciences
107 Conservation
108 Dairy science
109 Equestrian science
110 Fishing and fisheries
111 Food science
112 Forestry
113 Horticulture
114 Natural resources management
115 Ornamental horticulture
116 Preveterinary or veterinary medicine
117 Poultry science
118 Soils sciences
119 Wildlife management

130 Architecture and Environmental Design
131 Architecture
132 Architectural technology
138 Building Construction
139 Building Science and Technology
133 City, community, and regional planning and development (*also see* Public Affairs and Services)
134 Environmental design
135 Interior design
136 Landscape architecture
137 Urban design

140 Arts: Visual and Performing (*also see* Education)
141 Applied design (ceramics, weaving, textile design, fashion design, jewelry, metalsmithing, interior decoration, commercial art)
142 Art (painting, drawing, sculpture)
143 Art history and appreciation
144 Cinematography/Film
145 Dance
146 Dramatic arts
147 Graphic arts and industrial design
148 Instrumental music (performance)
149 Music (composition, theory)
150 Music history and appreciation
151 Photography
152 Vocal music (performance)

170 Biological (Life) Sciences (*also see* Science Education *in* Education)
171 Anatomy
172 Bacteriology
173 Biochemistry
174 Biology
175 Biometrics and biostatistics
176 Biophysics
177 Botany
178 Cell biology (cytology, cell physiology)
179 Ecology and environmental science (*also see* Agriculture and Natural Resources)
180 Embryology
181 Entomology
198 Environmental science
182 Genetics
183 Histology
184 Marine biology
185 Microbiology
186 Molecular biology
187 Neurosciences
188 Nutritional sciences (*also see* Home Economics)
189 Pathology, human and animal
190 Pharmacology, human and animal
191 Physiology, human and animal
192 Plant pathology (*also see* Agriculture and Natural Resources)
193 Plant pharmacology (*also see* Agriculture and Natural Resources)
194 Plant physiology (*also see* Agriculture and Natural Resources)
195 Radiobiology
196 Toxicology
197 Zoology

200 Business and Commerce (*also see* Education)
201 Accounting
202 Advertising (*also see* Communications)
203 Banking and finance
204 Business economics (*also see* Economics in Social Sciences and History)
205 Business management and administration
206 Business statistics
207 Fashion merchandising
208 Hotel/motel and restaurant management (*also see* Home Economics)
209 Insurance and risk management
210 International business
211 Investments and securities
212 Labor and industrial relations
213 Management information systems (*also see* Computer and Information Sciences and Technologies)
214 Marketing
215 Operations research
216 Personnel management
217 Real estate
218 Recreation, tourism, and travel
219 Transportation and commerce

250 Communications (*also see* Language and Literature *and* Business and Commerce)
251 Advertising
252 Business and technical writing
253 Film
254 Journalism (printed media)
255 Public relations
256 Radio and television (broadcasting)
257 Telecommunications

300 Computer and Information Sciences and Technologies (*also see* Engineering)
301 Computer programming
302 Computer science
303 Data processing
304 Data systems repair
305 Information systems and sciences
306 Microcomputer software
308 Robotics
307 Systems analysis

350 Education
351 Adult and continuing education
352 Agricultural education (*also see* Agriculture and Natural Resources)
353 Art education (*also see* Arts: Visual and Performing)
354 Bilingual and bicultural education
355 Business education (*also see* Business and Commerce)
356 Child development and nursery education (*also see* Home Economics *and* Social Sciences and History)
357 Curriculum and instruction
358 Driver and safety education
359 Education of the culturally disadvantaged
360 Education of the deaf and hearing impaired
361 Education of the emotionally handicapped
362 Education of exceptional children
363 Education of the gifted and talented
364 Education of the mentally handicapped
365 Education of the physically handicapped
366 Education of the visually handicapped
367 Educational administration
368 Educational statistics and research
369 Educational testing, evaluation, and measurement
370 Elementary education
371 English education (*also see* Language and Literature)
372 Health education (*also see* Health Professions and Allied Services)
373 Higher education
374 Home economics education (*also see* Home Economics)
375 Industrial arts, vocational/technical education
391 Junior high education
377 Marketing and distributive education (*also see* Business and Commerce)
376 Mathematics education (*also see* Mathematics)
378 Music education (*also see* Arts: Visual and Performing)
379 Pre-elementary education (kindergarten) (*also see* Social Sciences and History *and* Home Economics)
380 Physical education
381 Reading education (methodology and theory)
382 School psychology (*also see* Social Sciences and History)
383 Science education (*also see* Biological Sciences and Physical Sciences)
384 Secondary education
385 Social science education (*also see* Social Sciences and History)
386 Special education
387 Specific learning disabilities
388 Speech and hearing education, therapy
389 Student counseling and personnel services
390 Teaching of English as a foreign language

400 Engineering and Engineering Technologies
401 Aerospace, aeronautical, and astronautical engineering
402 Agricultural engineering (*also see* Agriculture and Natural Resources)
403 Architectural engineering (*also see* Architecture and Environmental Design)
404 Bioengineering and biomedical engineering
405 Ceramic engineering
406 Chemical engineering
407 Civil and transportation engineering
408 Computer engineering (*also see* Computer and Information Sciences and Technologies)
432 Construction Engineering
433 Construction Management
409 Electrical, electronics, and communications engineering
410 Engineering and public policy
411 Engineering mechanics
412 Engineering physics
413 Engineering sciences
414 Environmental health engineering
415 Geological engineering
416 Geophysical engineering
417 Industrial engineering
418 Industrial laboratory technology
419 Instrumentation technology
420 Materials engineering
421 Mechanical engineering
422 Mechanical engineering technologies
423 Metallurgical engineering
424 Mining and mineral engineering
425 Naval architecture and marine engineering
426 Nuclear engineering
427 Nuclear technology
428 Ocean engineering
429 Petroleum engineering
430 Plastics technology
431 Surveying and mapping sciences

450 Foreign Languages and Classical Languages
451 African languages (non-Semitic)
452 Arabic
453 Classical languages, general
454 Chinese
455 Foreign languages, multiple emphasis (includes concentration in more than one foreign language without major emphasis in any one language)
456 French
457 German
458 Greek, classical
459 Greek, modern
460 Hebrew
461 Indic languages (including Hindi and Sanskrit)
462 Italian
463 Japanese
464 Korean
465 Latin
466 Modern languages, general
467 Native American languages
468 Portuguese
469 Russian
470 Scandinavian languages
471 Slavic languages (other than Russian)
472 Spanish

489 General and Interdisciplinary Studies
481 General liberal arts and sciences
482 General studies
483 Biological and physical sciences
484 Engineering and other disciplines
485 Humanities and social sciences
486 Women's studies

500 Health Professions and Allied Services
501 Chiropractic (DC or DCM degree)
502 Dental hygiene or assistance
503 Dental laboratory technology
504 Emergency/disaster sciences or technology
505 Environmental health
531 Gerontology
506 Hospital and health care administration
507 Medical assistant or medical office assistant technologies
508 Medical laboratory technologies
509 Medical records technology and administration
510 Medical social work (medical and psychiatric and specialized rehabilitation services) (*also see* Public Affairs and Services)
511 Nuclear medicine and technologies
512 Nurse anesthetist
513 Nursing
514 Occupational therapy
515 Optometry
516 Osteopathic medicine (DO degree)
517 Pharmacy
518 Physical therapy
519 Physician's assistant
520 Podiatry or podiatric medicine (Pod. D or DP degree)
521 Predentistry - Dentistry (DDS or DMD degree)
522 Premedical - Medical (MD)
523 Preveterinary medicine - Veterinary medicine (DVM degree) (*also see* Agriculture and Natural Resources)
524 Public health
525 Radiologic technologies
526 Radiology and X-ray technology
527 Recreation therapy
532 Respiratory therapy and technology
528 Speech pathology and audiology (*also see* Education)
529 Sports medicine
530 Surgical technology

550 Home Economics (*also see* Education and Business and Commerce)
601 Child development, care and guidance
602 Clothing and textiles
603 Consumer studies
604 Family relations
605 Foods and nutrition (includes dietetics) (*also see* Agriculture and Natural Resources)
606 Home decoration and home equipment (*also see* Architecture and Environmental Design)
607 Institutional management

629 Language and Literature (*also see* Education)
621 American literature
622 Classics
623 Comparative literature
624 Creative writing
625 English
626 English literature
627 Linguistics (includes phonetics, semantics, and philology)
628 Speech, debate, forensic science (includes rhetoric and public address)

648 Library and Archival Sciences
641 Archival science
642 Library assistant
643 Library science
644 Museum studies

650 Mathematics (*also see* Education)
651 Actuarial sciences (*also see* Business and Commerce)
652 Applied mathematics
653 Mathematical and theoretical statistics

670 Military Sciences
671 Aerospace science (Air Force)
672 Coast Guard science
673 Merchant Marine science
674 Military science (Army)
675 Naval science (Navy, Marines)

690 Philosophy, Religion, and Theology
691 Philosophy
692 Religious education
693 Religious studies
694 Theology and theological professions

700 Physical Sciences
701 Analytical chemistry
702 Astronomy
703 Astrophysics
704 Atmospheric sciences and meteorology
705 Chemistry, general
706 Earth science
707 Geochemistry
708 Geology
709 Geophysics and seismology
710 Inorganic chemistry
711 Metallurgy
712 Molecular physics
713 Nuclear physics
714 Oceanography
715 Organic chemistry
716 Paleontology
717 Planetary science
718 Pharmaceutical chemistry
719 Physical chemistry
720 Physics, general

800 Public Affairs and Services
801 City, community, and regional planning and development (*also see* Architecture and Environmental Design)
802 Community services, general
803 Criminal justice
804 Fire science or protection
805 Funeral services
806 International public service (including foreign service)
807 Law enforcement and corrections
808 Parks and recreation management
809 Public administration
810 Safety administration
811 Social work

850 Social Sciences and History, General (*also see* Public Affairs and Services *and* Education)
851 American history
852 Anthropology
853 Archaeology
854 Child psychology
855 Clinical psychology
856 Criminology
857 Demography
858 Economics (*also see* Business and Commerce)
859 European history
860 Experimental psychology
861 Geography
862 History, general
863 Industrial psychology
864 International relations
885 Paralegal
865 Political science or government
866 Prelaw - Law (JD degree)
867 Psychology
868 Social psychology
869 Sociology
870 Area and ethnic studies
871 African studies
872 American studies
873 American Indian studies
874 Asian studies
875 Black studies
876 Hispanic American studies
877 Islamic studies
878 Jewish studies
879 Latin American studies
880 Mexican American studies
881 Middle Eastern studies
882 Pacific area studies
883 Russian and Slavic studies
884 Spanish American studies

950 Technical and Vocational
951 Air transportation technologies
952 Flight attendant
953 Automotive mechanics
954 Aircraft mechanics
955 Construction trades
956 Carpentry and woodworking
957 Cosmetology
958 Culinary arts
959 Drafting/engineering graphics
960 Electronics
961 Heating, air conditioning, and refrigeration
962 Machine tool technology
963 Masonry (brick, cement, stone, etc.)
964 Plumbing, pipefitting, steamfitting
965 Precision metalwork
966 Secretarial studies

999 Undecided

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